CLAIMS

1. An elevator apparatus comprising:

a car raised and lowered within a hoistway;

a main sensor unit for generating a main detection signal corresponding to a movement amount of the car; and

a control device for obtaining car information including at least one of car position information and car speed information based on the main detection signal, and for controlling operation of the car in accordance with the car information,

characterized in that:

the elevator apparatus further comprises an auxiliary sensor unit for generating an auxiliary detection signal upon detecting an arrival of the car at a preset reference position within the hoistway; and

the control device makes corrections to the car information based on the auxiliary detection signal.

2. An elevator apparatus according to Claim 1, characterized in that the main sensor unit is mounted to the car.

3. An elevator apparatus according to Claim 2, further comprising a car guide rail for guiding raising and lowering of the car,

characterized in that the main sensor unit has a detection roller that is rolled along the car guide rail as the car is raised and lowered, and a signal generator for generating the main detection signal in accordance with a rotation of the detection roller.

4. An elevator apparatus according to Claim 1, characterized in that the auxiliary sensor unit is mounted to the car.

5. An elevator apparatus according to Claim 4, further comprising a car guide rail for guiding raising and lowering of the car, the car guide rail having a plurality of rail members that are jointed together in a raising and lowering direction of the car,

characterized in that the auxiliary sensor unit detects a joint of the rail members as the reference position.

6. An elevator apparatus according to Claim 1, characterized in that the auxiliary sensor unit is disposed at the preset reference position within the hoistway.

7. An elevator apparatus according to Claim 1, characterized in that when an amount of correction to be made to the car information due to the auxiliary detection signal is equal to or larger than a set value that is set in advance, the control device judges that

there is a failure in at least one of the main sensor unit and the auxiliary sensor unit to generate a failure detection signal.

8. An elevator apparatus according to Claim 1, characterized in that:

the main sensor unit includes a plurality of main sensors; and

the control device compares main detection signals from the respective main sensors, and when a difference between the main detection signals is equal to or larger than a set value that is set in advance, the control device judges that there is a failure in the main sensors to generate a failure detection signal.

9. An elevator apparatus comprising:

a car raised and lowered within a hoistway;

a main sensor unit for generating a main detection signal corresponding to a movement amount of the car; and

a control device for obtaining car information including at least one of car position information and car speed information based on the main detection signal, and for controlling operation of the car in accordance with the car information,

characterized in that:

the elevator apparatus further comprises an auxiliary sensor unit for generating an auxiliary detection signal upon detecting

an arrival of the car at a preset reference position within the hoistway; and

the control device monitors an error in the car information based on the auxiliary detection signal.